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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/763,708	01/22/2004	Takayuki Nishimura	6453P033	7652

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EXAMINER

CASCHERA, ANTONIO A

ART UNIT	PAPER NUMBER
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2628

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/763,708

Applicant(s)

NISHIMURA ET AL.

Examiner

Antonio A. Caschera

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4,6,8,12,14,15,17,19,21,25,27,29,31 and 34 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

- 6) ☒ Claim(s) 1,2,4,6,8,12,14,15,17,19,21,25,27,29,31 and 34 is/are rejected.

- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. Receipt is acknowledged of a request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e) and a submission, filed on 8/23/06.

### *Priority*

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in the pending application.

### *Claim Objections*

3. Claims 2, 4, 6, 17 and 19 are objected to because of the following informalities:
  - a. In reference to claims 2, 4, 17 the phrase, "...wherein in a case in that a digital color conversion by quantizing the first color space having the lower resolution level and being analog..." (see lines 4-5 of claim 2, for example) is not comprehensive.
  - b. In reference to claims 6 and 19, the word, "conducting" (see line 4 of claim 6, for example) should be replaced with "conducting" as seen in similar claim 8, for example.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 101*

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 1, 2, 4, 6, 8, 12, 25, 27, 29 and 31-34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In reference to claims 1, 12 and 25, the language of the claims raise questions as to whether the claims are directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Specifically, the “method for reversibly converting a data format...” as disclosed in claims 1, 12 and 25, are the abstract ideas, which could be implemented without the use of any type of machine. See MPEP 2106 IV (B)(1).

In reference to claims 33 and 34, the language of the claims raise questions as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or machine which would result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101. Specifically, the “computer-executable program...” as disclosed in claim 33 and the “computer-readable recording medium...” as disclosed in claim 34, are the abstract ideas. See MPEP 2106 IV (B)(1). Note, in reference to claim 33, the “computer-executable program” is interpreted as a data structure, which by itself is seen as non-statutory subject matter (see above citation to MPEP). Further, the Office suggests the Applicant amend the claim language of claim 34, and any dependent claims, to read, for example, “A computer-readable medium encoded with a computer program which executes the computer to....”

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 4, 6, 8, 14, 15, 17, 19, 21, 27, 29, 33 and 34 are rejected under 35

U.S.C. 102(e) as being anticipated by Bezryadin (U.S. Patent 6,934,411 B2).

In reference to claims 1, 14, 33 and 34, Bezryadin discloses methods and apparatus for color conversion, the color conversion being reversible and having a color system being defined using luminance and a color difference (see column 2, lines 48-53 and column 3, lines 30-49, i.e. the color differencing calculations of the conversion). Bezryadin also discloses a forward transformation and a backward transformation of data from RGB to YRgBg and vice-versa, color spaces (see column 6, lines 8-12 and 26-27 and Figures 2 and 3). Bezryadin discloses the first unit system or color format (RGB) having a lower resolution as compared to the second unit system (YRgBg) (see column 6, lines 8-24 and 26-41 and Figures 2 and 3, specifically that RGB is represented with n-bit data for each data signal while n+1 bits represent the Rg and Bg terms of the YRgBg data color format). Bezryadin further discloses that both the forward and backward conversions of RGB-to-YRgBg and YRgBg-to-RGB are performed using an integer operation (see column 6, lines 8-41, column 4, equations 11.1-11.4 and 12.1-12.4 and Figures 2 and 3). Note, the integer operation of Applicant's claims is seen functionally equivalent to the mathematical operations found in 11.1-11.4 and 12.1-12.4 respectively along with the calculation

of signal P (see column 7, lines 21-67). Note, the Office further points out that the two color spaces/formats utilized in Bezryadin are based upon three primary colors of light and are different from one another. Further in reference to claims 14, 33 and 34, Bezryadin explicitly discloses the use of circuitry or software (stored on a computer readable medium) to perform the above color conversion techniques (see column 5, lines 48-55).

In reference to claims 2, 4, 6, 8, 15, 17, 19 and 21, Bezryadin discloses all of the claim limitations as applied to claims 1 and 14 respectively above. Bezryadin also discloses performing color compression after performing color conversion (see #104 and 106 of Figure 1). The Office interprets the “third data” of the claims equivalent to the result of the second color format (the YRgBg data after conversion from RGB) having been compressed since such data does indeed correspond to the first format RGB data because it has been derived from such data. Therefore the Office interprets Bezryadin to inherently disclose such “third data” created via the output of the compression (#106 of Figure 1) (further see column 5, lines 37-48).

In reference to claims 27 and 29, Bezryadin discloses all of the claim limitations as applied to claim 1. Bezryadin discloses calculating a P signal used in converting from one color space/format to another by bit shifting using powers of 2 (see column 7, lines 21-67).

### *Response to Arguments*

6. Applicant's arguments, see page 12, 3<sup>rd</sup> paragraph of Applicant's Remarks, filed 08/23/06, with respect to 35 USC 112 2<sup>nd</sup> paragraph rejection of claims 31 and 32 have been fully considered and are persuasive. The 35 USC 112, 2<sup>nd</sup> paragraph rejection of claims 31 and

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32 has been withdrawn since the newly amended claim language now clearly and distinctly points out the, "rounding" elements of the claims.

7. Applicant's arguments, see pages 12-15 of Applicant's Remarks, filed 8/23/06, with respect to the rejection(s) of claim(s) 1, 2, 4, 6, 8, 12, 14, 15, 17, 19, 21, 25, 27, 29 and 31-34 under 35 USC 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Bezryadin.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Antonio Caschera whose telephone number is (571) 272-7781. The examiner can normally be reached Monday-Thursday and alternate Fridays between 7:00 AM and 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung, can be reached at (571) 272-7794.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**571-273-8300 (Central Fax)**

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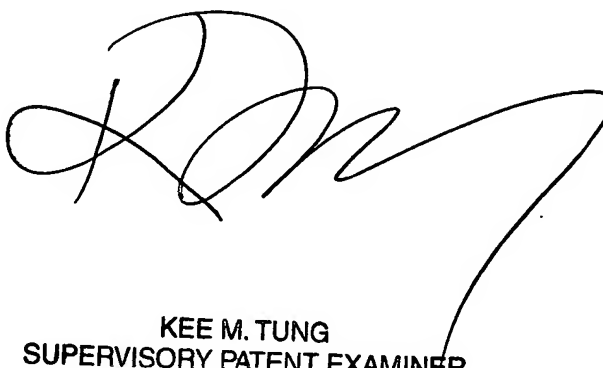
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (571) 272-2600.

aac



10/26/06

**PATENT EXAMINER**



**KEE M. TUNG  
SUPERVISORY PATENT EXAMINER**